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- (c) extracting data for a first side and a second side from each of the first and second plates to obtain a first side data total and a second side data total; and
  - (d) determining which one of the right and left foot corresponds to said first side data and which one corresponds to said second side data, determining includes
    - (i) calculating a trajectory of a placement of each one of said feet as it moves on the treadmill, said trajectory calculation based on centers of pressure using moment data, and
    - (ii) determining which one of said trajectories corresponds to an individual's right foot and which one of said trajectories corresponds to an individual's left foot.
9. A method for interpreting data representing forces and torques exerted by a right and left foot on a first and second plate treadmill to determine forces and torques exerted on the right and left foot, over a specified period of time, comprising:
- (a) analyzing data including a plurality of signal outputs from the first and second plates to determine an occurrence of heel-strikes on the plates and toe-off events from the plates;
  - (b) dividing said data into frames, each of said frames being an odd-numbered frame or an even-numbered frame;
  - (c) separating said data into side A data and side B data, separating includes
    - (i) accumulating data from said odd-numbered frames from said first plate and placing said data from said odd-numbered frames into a first file,

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- (ii) accumulating data from said even-numbered frames from said first plate and placing said data from said even-numbered frames into a second file,
  - (iii) accumulating data from said odd-numbered frames from said second plate and placing said data from said odd-numbered frames into a third file, and
  - (iv) accumulating data from said even-numbered frames from said second plate and placing said data from said even-numbered frames into a forth file; and
- (d) determining which one of the right and left foot corresponds to said side A data and which one corresponds to said side B data, determining includes
- (i) calculating a trajectory of a placement of each one of said feet as it moves on the treadmill, said trajectory calculation based on centers of pressure using moment data, and
  - (ii) determining which one of said trajectories corresponds to an individual's right foot and which one of said trajectories corresponds to an individual's left foot.
10. The method of claim 9, further comprising:
- (v) adding said data from steps (i) and (iii) to obtain data for side A; and
  - (vi) adding said data from steps (ii) and (iv) to obtain data for side B.

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